

# Climate Change & sustainability in ONGC

By

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**9<sup>th</sup> Vendors' Meet,**  
**July 24, 2010**

# Contents

- Sustainable development and sustainability
- How to achieve
- Industry and SD
- ONGC and SD
- Way forward

# Sustainability and Sustainable Development

- **Sustainability:** An attempt to provide the best outcomes for the human and natural environments both now and into the indefinite future.
  - Continuity of economic, social, institutional & environmental aspects of human society, as well as the non-human environment.
- **Sustainable Development:** *Development that "meets the needs of the present generation without compromising the ability of future generations to meet their own needs."* ([Brundtland Report](#). 1987)

# Three pillars of sustainable development

- Economic development
- Environmental well being
- Societal development

A triple bottomline approach

# Industry and SD: Possible intervention



# Minimising risk

- Minimising GHG emission
- Optimising energy usage through operational and energy efficiency
- Minimising waste and Redesign to minimize water use
- Redesign for resilience
- Emergency response preparedness
- Supply chain balancing and contingency planning
  
- Community emergency response
- Infrastructure planning
- Logistics contingency planning
- Community health plans
- Watershed management
  
- Support of global health programs
- Improved information systems

## Possible adaptation

- Promote to renewable energy ( Business process reengineering)
- Proper water management
- Protecting coastal operations
- Improving offshore structural design
- Improving information management
- Improving emergency response
- Improving supply chain and logistics management
- Improving contingency planning.

# Adaptation and Business opportunities

- Design new products
- Enter new markets with new products
- Extend markets
- Better access to raw material
- More favourable regulatory framework
- Leveraging mitigation measures

# Adaptation and CSR

- Work towards betterment of surrounding communities
- Work towards betterment of information system
- Work towards global adaptation strategies

## ONGC and SD: A case study



# Carbon Management

- ***Mandates***
- GHG Management
- Develop Green House Gases (GHG) inventory, accounting and information system of ONGC
- Identify and develop GHG programs and projects
- Monitor the existing/ ongoing registered CDM Projects
- Carbon disclosure in the company balance sheet
- Develop climate protection strategy and policy
- Strategic management of Climate Change and business opportunity thereof
- Develop sustainability reporting

## CMG in ONGC - Activities

- CDM project development
- GHG accounting for ONGC facilities
- Reporting through Carbon Disclosure Project
- Sustainability Reporting in progress
- M2M (Methane to Markets) Program
- Policy framework for carbon neutrality

# Carbon neutrality: Approach

- Corporate wide GHG accounting(Assessment of carbon footprint)
  - To be completed by 2012
- Devising Action plan
  - Short term mitigation( 1-2 years, 15%)
  - Mid term mitigation( 3-7 yrs, 40%)
  - Long term mitigation( 7-20 years, offsetting and balancing)
- Internalising the concept
  - All future project shall have carbon footprint established and neutrality embedded in proposal
- Certification

# GFR Projects

- Corporate policy towards zero flaring
- Interventions adopted:
  - Pipelines networking
  - Using compressors
  - Using ejectors
  - Adopting innovative measures as GTW (Gas to Wire).

# Methane to Markets Project

- International initiative to advance cost-effective, near-term methane recovery and use as a clean energy source.
  - **Total 3.2 Million Metre Cube of Methane saving in 2008-09**
  - **Total 30 MMSCM of Methane has been measured for capturing**
    - ONGC is equipped now to measure fugitive emission
    - Would undertake measurement at all its installation

# Our CDM Experience

## Snapshot:

17 DNA approved CDM projects, Six registered. 9 under development. Issuance commenced. Trading to commence this year.

SI No	CDM Project Name	Date of Registration	CER per annum
1.	Waste heat recovery from Process Gas Compressors (PGCs), Mumbai high south (offshore platform) and using the recovered heat to heat process heating oil ( Regn Ref No 0814)	28 Feb'07	5320
2.	Up-gradation of Gas Turbine 1 (GT 1) and Gas Turbine 2 (GT 2) at co-generation plant of Hazira Gas Processing Complex (HGPC)( Regn Ref No 0847)	1 Mar'07	7802
3.	Flare gas recovery project at Uran plant( Regn Ref No 1220)	17 Dec'07	97740
4.	Flare gas recovery project at Hazira Gas Processing Complex (HGPC)( Regn Ref No 1354)	16 May'08	8793
5.	Energy Efficiency of Amine Circulation Pumps at Hazira plant( Regn No 2648)	22 Sep'09	4043
6	51 MW wind power project at Bhuj, Gujarat	01.03.2010	85762
	<b>TOTAL</b>		<b>209,460</b>

# Green Buildings

- ONGC is constructing **four green buildings**, one each at Vasant Kunj- Delhi, Mumbai, Kolkata and Dehradun for energy conservation.
- The buildings are designed as a Green, Energy-efficient, Intelligent and Barrier-free.
- These buildings will be constructed for the Platinum Rating under USGBC's LEED rating system
- Green pledge on Green building under MNRE
- **All the buildings being developed as CDM projects**

# Wind Power

- ONGC has already set up 50 MW wind turbine project in the state of Gujarat
- Further examining feasibility of setting up wind farm(s) of additional 100 MW by March, 2011.
- Developed as India's largest CDM project on renewable energy( Registered for annual CER of 85762 pa for 21 years)

# CSR– An integral part of SD

## Corporate Social Responsibility

- Focuses on the societal aspect of SD
- An integral part of adaptation strategy
- Generates good will to help implement SD strategy

Makes business sense

# ONGC CSR Focus areas

## 12 identified focus areas:

- Education including vocational courses
- Health Care
- Entrepreneurship (self help & livelihood generation) schemes
- Infrastructure support roads, bridges, Schools, hospitals in around our operational areas
- Environment protection, ecological conservation, promotion
- Protection of heritage sites, UNESCO heritage monuments etc.
- Promotion of artisans, craftsman, musicians, artists etc. for preservation of heritage, art & culture.
- Women's empowerment, girl child development, gender sensitive projects
- Water management including ground water recharge
- Initiatives for physically and mentally challenged
- Sponsorship of seminars, conferences, workshops etc
- Promoting sports/sports persons; supporting agencies promoting sports / sports persons



# CSR Functioning in ONGC

## Three tier system

- ❑ Projects with Corporate level
  - Projects undertaken at Pan India level
  - Centralised Budget for CSR is at the corporate level
- ❑ Projects with Assets / Work centre level
  - FPR at Asset / work centre
  - Funds allocated to work centre
- ❑ National level Govt. CSR programs
- ❑ CSR activity should also involve the suppliers in order to ensure that the supply chain also follows the CSR principles. ( DPE guideline on CSR)

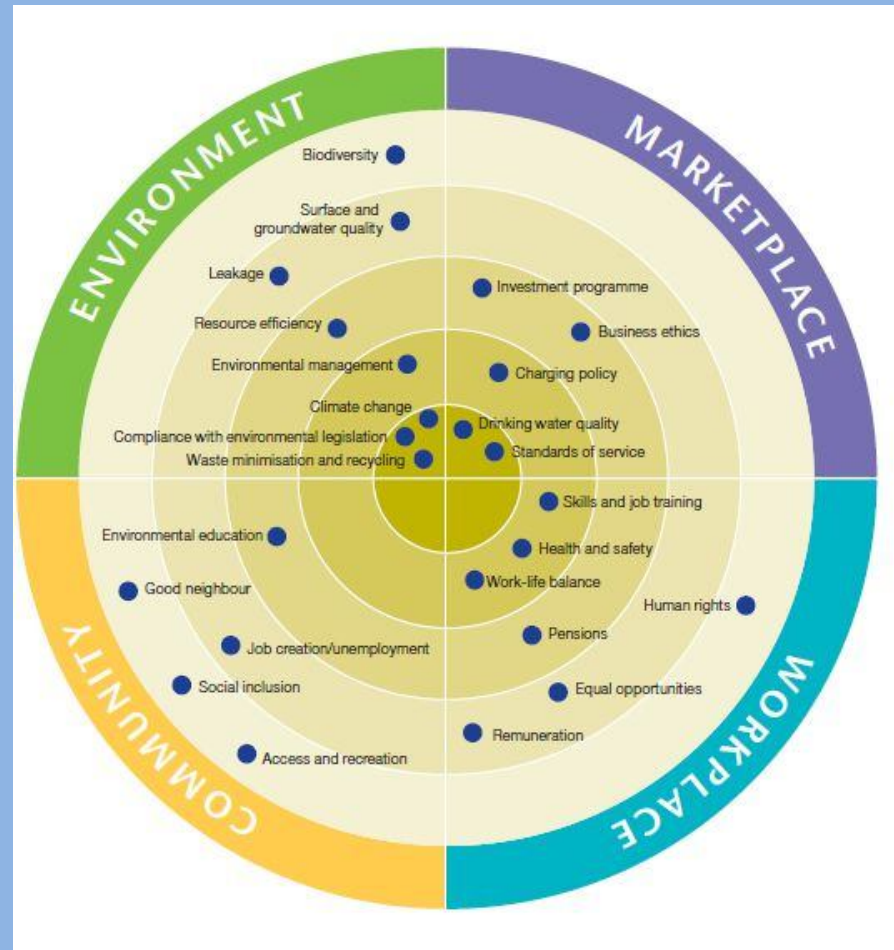
# Way forward

- Attaining carbon neutrality
- Active participation in national level
- Water management

# Vendors and Sustainable development

- Scope 3 of GHG emission as per Gri-G3 deals with vendors emission
- A company's total footprint should include scope 3 of emission
- SR talks about stakeholders' engagement
- Volunatry carbon disclosure( like CDP) queries about the vendors' engagement

# Sustainability Risk radar



# Conclusions

- Carbon management is the key
- Social responsiveness contributes to sustainable development & growth
- Expectations from vendors: Joining ONGC's goal of SD
- Alignment of thinking process of vendors and ONGC
- Reorganisation of business processes by vendors

Is Carbon going to be the Gold Standard?

Our Aim – Carbon neutrality.

**Thank You**

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